

Phytochemicals and antioxidant activity of different parts of bambangan (*Mangifera pajang*) and tarap (*Artocarpus odoratissimus*)

ABSTRACT

Mangifera pajang (family: Anacardiaceae; local name: bambangan) and *Artocarpus odoratissimus* (family: Moraceae; local name: tarap) are popular edible fruits in Sabah, Malaysia. The flesh, kernel and peel from *M. pajang*; seed and flesh from *A. odoratissimus* were analysed for total antioxidant activity, total polyphenol, total flavonoid and total anthocyanins contents. *M. pajang* kernel extract displayed the highest free radical scavenging and ferric reducing activities. Total phenolic content of the samples were in the range of 5.966-103.3 mg gallic acid equivalent/g. *M. pajang* kernel and *M. pajang* flesh contained the highest and lowest total flavonoid content with the values of 10.98 and 0.07 mg rutin equivalent/g, respectively. The antioxidant activities of extracts were significantly correlated with the total phenolic and flavonoid content (but not the anthocyanins content). The phytochemicals and antioxidant properties of *M. pajang* and *A. odoratissimus*, especially their by-products (kernel/seed), indicate that they may impart health benefits when consumed and should be regarded as a valuable source of antioxidant-rich nutraceuticals.

Keyword: *M. pajang*; *A. odoratissimus*; Antioxidant activity; Total phenolic; Total flavonoid